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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,875	07/30/2003	Garry E. Balthes	29595/82608	7941

7590 10/28/2004

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EXAMINER	
BOYD, JENNIFER A	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,875	BALTHES ET AL.	
	Examiner	Art Unit	
	Jennifer A Boyd	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) *1-18 and 27-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/22/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group III, claims 19 – 26, in the reply filed on August 20, 2004 is acknowledged. Claims 1 – 18 and 27 – 41 are withdrawn.

Claim Objections

2. Claim 22 is objected to because of the following informalities: the word "cellulose" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. What does the phrase "permeability resistance" mean? Does the Applicant mean that the film is resistance to water vapor or is it resistant to water? Please clarify by amending the claim limitations to phrases such as "waterproof" or "water vapor resistant", etc. For the purpose of examination at this time, the Examiner assumes that the film is water permeability resistant as stated on page 8 of the Specification.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 19 and 21 - 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 5,895,301).

Porter is directed to a hand-tearable moisture barrier laminate (Title) suitable for applications which require water resistance while permitting the passage of water vapor (column 1, lines 10 – 15).

As to claim 19, Porter teaches a laminate as shown in Figure 1. Porter teaches a pair of cellulosic webs 10 and 20 having a scrim 25 laminated therebetween (column 3, lines 15 – 25). Porter teaches that the cellulosic webs 10 and 20 are treated with a latex polymeric resin which narrows the pores through the webs or renders them hydrophobic, or both, so as to substantially prohibit the penetration of liquid water, while not substantially interfering with the transmission of water vapor (column 3, lines 20 – 25). Porter teaches that the cellulosic webs comprise at least about 30% of cellulosic fiber such as flax, jute, hemp, ramie, sisal, abaca, etc (column 3, lines 30 – 40). It should be noted that sisal is a "natural filler fiber", therefore, the presence of sisal meets Applicant's requirement of both sisal and natural filler fibers being present in the core. If the Applicant requires that the "natural filler fibers" are fibers other than sisal, it is highly suggested that the Applicant amend the claim language to specify the type of natural filler fibers. The Examiner equates cellulosic web 20 to Applicant's "core layer" comprising

the latex polymeric resin, or "binding resin". Porter teaches that the scrim 25 can be in the form of a woven material comprising fibers such as polyester, glass, rayon, or combinations thereof (column 3, lines 60 – 68). The Examiner equates the scrim 25 to Applicant's "woven fiber layer". Porter teaches that the webs 10 and 20 and the scrim 25 are bonded together to form a single composite having a thickness preferably between 3 – 10 mils (column 4, lines 5 – 19). It should be noted that if the composite of webs 10 and 20 and scrim 25 has a thickness of preferably between 3 – 10 mils, each layer would have a thickness of less than 10 mils. According to Hawley's Condensed Chemical Dictionary, a "film" is an extremely thin continuous sheet of a substance that may or may not be in contact with a substrate. There is no precise upper limit of thickness, but a reasonable assumption is 0.010 inch (10 mils). Therefore, the Examiner equates the impregnated cellulosic web 10 to Applicant's "film layer". In Figure 1, the composite laminate additionally comprises layer 37. Porter notes that nonadherant layer can replaced with a low density adhesive layer 39 as shown in Figure 5 (column 5, lines 29 – 35). Porter teaches that the adhesive can be potentially pore-blocking (column 5, lines 15 – 20), which implies water resistance. The Examiner equates the low density adhesive layer 39 to Applicant's "permeability-resistance film layer".

As to claim 21, Porter teaches that the woven fabric can comprise polyester (column 3, lines 55 – 68).

As to claim 22, Porter discloses the claimed invention except for that the woven material can comprise polypropylene and cellulose. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a woven material comprising polypropylene and cellulose, since it has been held to be within the

general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416. In the present invention, one would have been motivated to use a woven material comprising polypropylene and cellulose due to the wide availability and cost of the materials, relatively high mildew resistance and aesthetic appeal highly desired for building and construction applications.

8. Claims 20 and 23 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 5,895,301) in view of Phillips et al. (US 6,479,117).

Porter teaches the claimed invention but fails to disclose that the impregnated cellulosic web 10, equated to Applicant's "film layer", can comprise a polypropylene film as required by claim 23 or that the binding resin in Applicant's "core layer" can comprise nylon film as required by claim 25.

Phillips et al. is directed to combined waterproofing sheet and protection course membrane (Title) useful for building foundations (column1, lines 15 – 20). Phillips teaches that the water resistant film in the invention is preferably made from polypropylene but also can be made of polyamide or polyvinylchloride (PVC) (column 3, lines 10 – 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use polypropylene or nylon as suggested by Phillips as the film layer or the binding resin of Porter motivated by the desire to use a waterproofing material as required by Porter which is readily available.

Furthermore, it has been held that, "it is prima facie obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances." *In re Stzff* 1 18 USPQ 343, *In re Jezel* 158 USPQ 99, "the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious." *In re Font*, 213 USPQ 532. In view of this ruling, it is the position of the Examiner that nylon and polypropylene will provide a waterproofing effect in the same manner as vinyl chloride.

As to claims 20, 24 and 26, Porter in view of Phillips discloses the claimed invention except that the "core layer" comprises about 25 – 35 polypropylene binder, sisal is present in the amount of 35 – 45 weight percent and the natural filler fibers are present in the amount of 25 – 35 weight percent as required by claim 20, the polypropylene film layer is 4 mil as required by claim 24 and the nylon film layer is 4 mil as required by claim 26. It should be noted that the amount of binder, sisal, natural filler fibers and film thickness are result effective variables. For example, as the amount of sisal fibers increases, the laminate becomes higher in strength and durable. As the amount of binder increases, the laminate becomes more integrated and stiff. The thickness of the film directly relates to the durability and flexural strength of the laminate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the "core layer" comprises about 25 – 35 polypropylene binder, sisal is present in the amount of 35 – 45 weight percent and the natural filler fibers are present in the amount of 25 – 35 weight percent as required by claim 20, the polypropylene film layer is

4 mil as required by claim 24 and the nylon film layer is 4 mil as required by claim 26 since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 198). In the present invention, one would have been motivated to optimize the amount of sisal, binder and film thickness in the laminate in order to create a laminate which is high in both tensile and flexural strength, coarse and durable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Boyd
October 21, 2004

Ula Ruddock
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Primary Examiner
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